JVC

PORTABLE CD CHANGER SYSTEM

PC-XC30 C/J
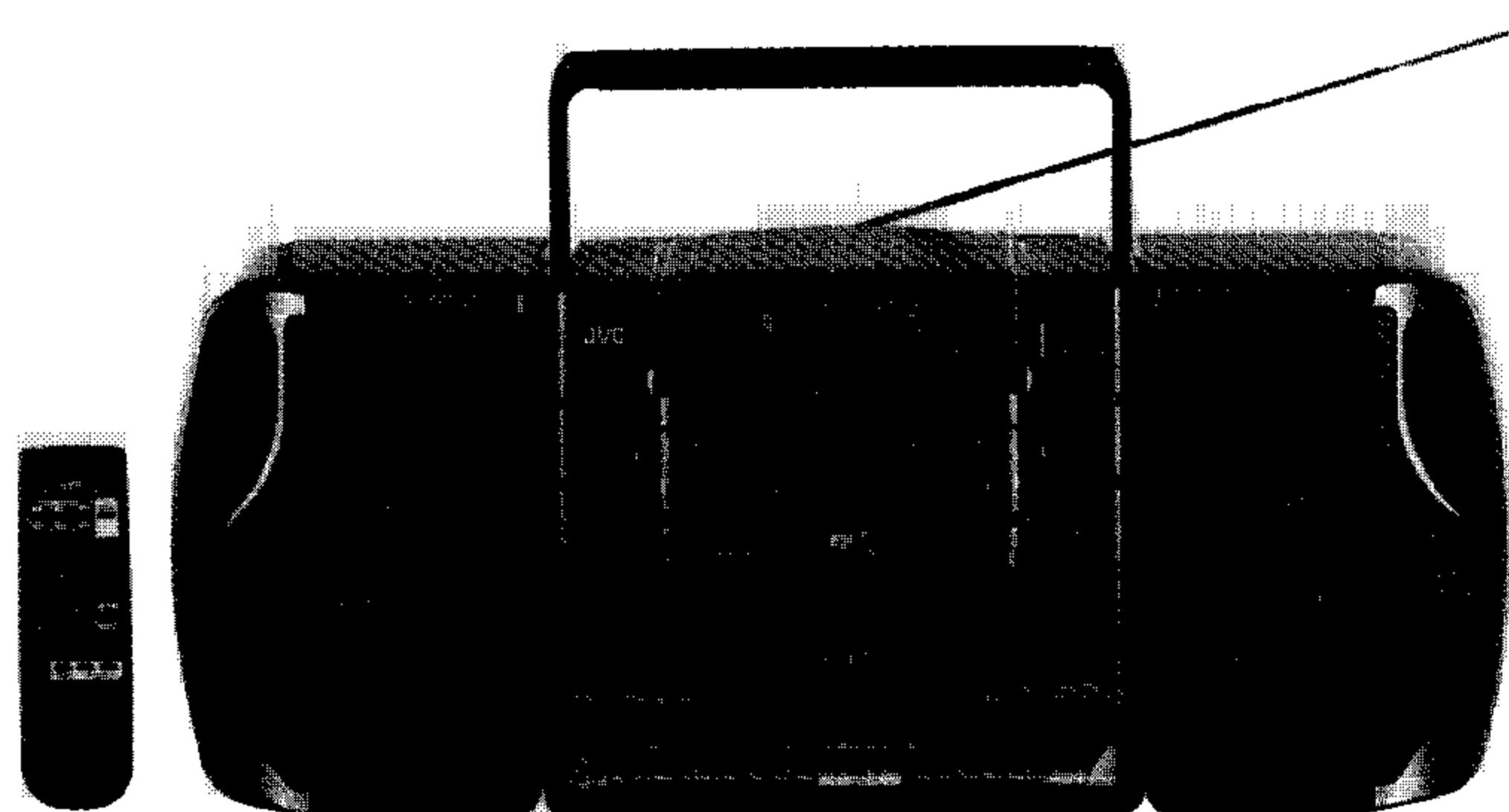
COMPACT

disc

DIGITAL AUDIO

Area SuffiX	
C · Canada
J · U.S.A.

■ Instructions(Extracts)

FEATURES

1. **Multi-function 6-disc changer with extra-CD to play**
   - Direct Disc Select/Skip Play/Search Play/Continuous Play/Repeat Play/Random Play.
   - Programmed play of up to 20 tunes.
2. **One-touch operation (COMPU PLAY) (only when AC power is used)**
   - When a source button (CD, tape or tuner) is pressed, the unit's power is turned ON and initiates playback, even when the power is set to STANDBY.
3. **39-key remote control unit (CD and tuner operations)**
   - Remote control unit controls power ON/OFF switching, volume control, bass/treble control, Active Hyper-Bass (PC-XC50), Multi-Bass Horn (PC-XC30) ON/OFF switching.

4. **Double-cassette mechanism (Deck A for recording and playback, Deck B for playback)**
   - Metal (type IV) and CrO2 (type II) tape can be played back, for superior tone quality.
   - Synchro start dubbing function (normal/high-speed dubbing).
5. **2-Band digital synthesizer tuner with 20-station (10 FM and 10 AM) preset capability**
   - Seek /Manual tuning.
   - Auto preset tuning.
6. **Active Hyper-Bass circuit for low-frequency sound reproduction and 2-way speakers for superior sound (PC-XC50)**
   Multi-Bass Horn circuit for low-frequency sound reproduction and full-range speaker for superior sound (PC-XC30)
7. **Timer/Clock function**

SPECIFICATIONS

Compact disc player section

Type	: Compact disc player
Signal detection system	: Non-contact optical pickup (semiconductor laser)
Number of channels	: 2 channels (stereo)
Frequency response	: 20 Hz – 20,000 Hz
Signal-to-noise ratio	: 86 dB (PC-XC50)
	76 dB (PC-XC30)
Wow & flutter	: Less than measurable limit

Radio section

Frequency range	: FM 87.5 – 108 MHz
	AM 530 – 1,710 kHz
Antennas	: Telescopic antenna for FM
	Ferrite core antenna for AM

Tape deck section

Track system	: 4-track 2-channel stereo
Motor	: Electronic governor DC motor for capstan
Heads	: Deck A; Hard permalloy head for recording/playback, 2 gap permalloy head for erasure Deck B; Hard permalloy head for playback
Frequency response	: 63 – 12,500 Hz (with normal tape)
Wow & flutter	: 0.15 % (WRMS)
Fast wind time	: Approx. 120 sec. (C-60 cassette)

General

Power output	: 6 watts per channel, min RMS, at 8 ohms from 70 Hz to 15 kHz with no more than 10 % total harmonic distortion (PC-XC50J) Max. 20 W (10 W + 10 W) at 8 Ω (PC-XC50C) 4.2 watts per channel, min RMS, at 3 ohms from 80 Hz to 15 kHz with no more than 10 % total harmonic distortion (PC-XC30J) Max. 15 W (7.5 W + 7.5 W) at 3 Ω (PC-XC30C)

|	
Output terminals	: PHONES x 1 (Output level:0 – 12 mW/32 Ω, Matching impedance: 16 Ω - 1 kΩ)
Power supply	: AC 120 V, 60 Hz DC 12 V ("D" cells x 8)
Power consumption	: (with POWER SW ON) 35 W (PC-XC50J) 36 W (PC-XC50C) 28 W (PC-XC30) (with POWER SW STANDBY) 3.0 W
Dimensions	: 668(W) x 271(H) x 276(D) mm (26-5/16" x 10-11/16" x 10-15/16") including knobs
Weight	: (with batteries) 9.9 kg (21.9 lbs) (PC-XC50) 9.7 kg (21.4 lbs) (PC-XC30) (without batteries) 9.1 kg (20.1 lbs) (PC-XC50) 8.9 kg (19.7 lbs) (PC-XC30)
Accessories provided	: AC power cord x 1 Remote control unit (RM-RXC50 or RXC30) x 1 Battery "AA" x 2 (for the remote control)

Speaker Section (each unit)

Speakers	: 10 cm (3-15/16") x 1, 2 cm (13/16") x 1 (PC-XC50) 10 cm (3-15/16") x 1 (PC-XC30)
Impedance	: 8 Ω (PC-XC50) 3 Ω (PC-XC30)
Dimensions	: 183 (W) x 265 (H) x 239 (D) mm (7-1/4" x 10-7/16" x 9-7/16") (PC-XC50) 183 (W) x 265 (H) x 243 (D) mm (7-1/4" x 10-7/16" x 9-5/8") (PC-XC30)
Weight	: Approx. 1.8 kg (4.0 lbs) (PC-XC50) Approx. 1.7 kg (3.8 lbs) (PC-XC30)

Design and specifications are subject to change without notice.

ATTACHING/DETACHING THE SPEAKERS

When using the speakers attached to the main unit
Hold with the bottom of the speaker against the top of the main unit and press down on the speaker to attach it.

Speaker slot

Press the speaker down with the speaker and main unit aligned.
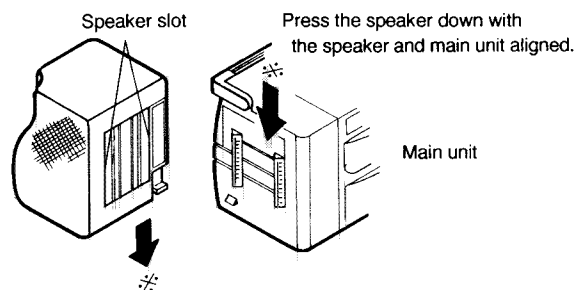
Main unit

When using the speakers detached from the main unit
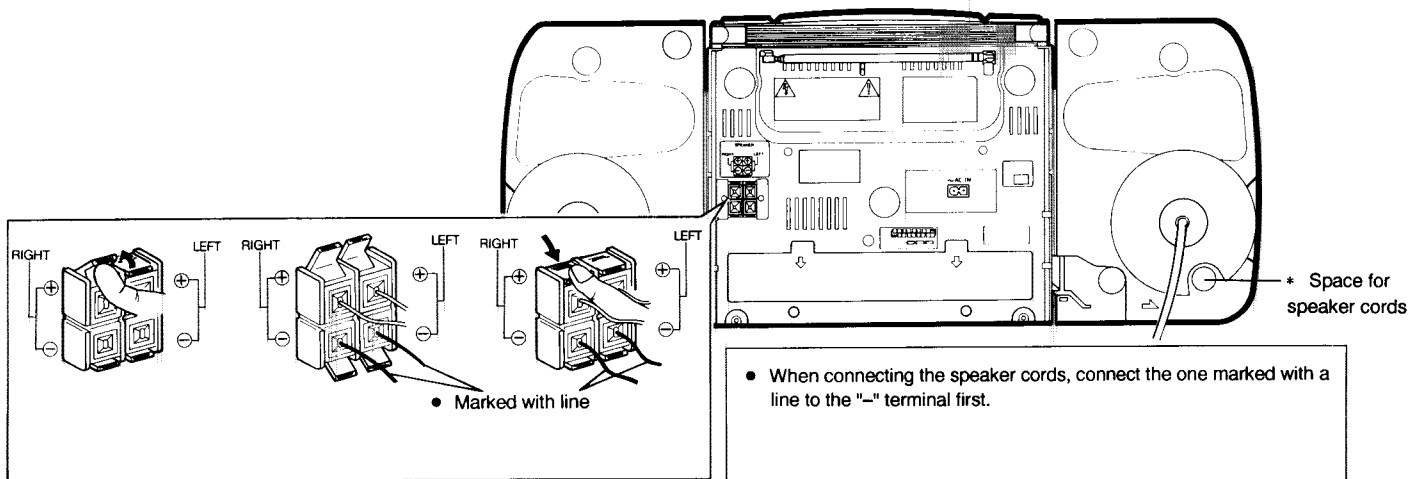Lift the speaker up to detach from the main unit by pressing the lock lever at the rear bottom of speaker in the direction of the arrow.

While pressing the lock lever...

Lift it up

Lock lever

Rear side of the speaker
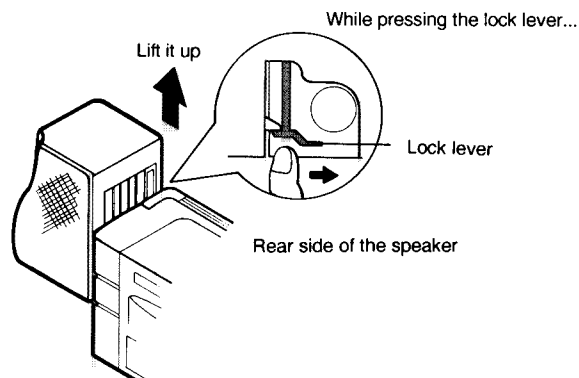
> **Note:**
> Since the speakers sound differently according to where they are placed, carefully place them for optimal effect within the length of the provided speaker cords. It is recommended that the left and right speakers be placed symmetrically in relation to the main unit.

CONNECTIONS

● Do not switch the power on until all the connections are completed.

* After connecting the speaker cords, bundle any slack into the space for the speaker cords in the rear panel.

RIGHT   LEFT   RIGHT   LEFT   RIGHT   LEFT

* Space for speaker cords

● Marked with line

> ● When connecting the speaker cords, connect the one marked with a line to the "–" terminal first.

POWER SUPPLY

A. Operation on household AC

● **Connect the AC power cord.**
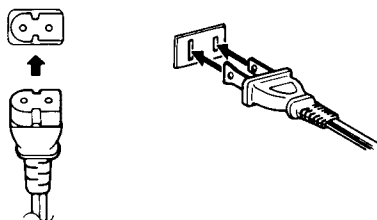
● The provided AC power cord for this unit has certain one-way direction connections to prevent electric shock. Refer to the illustration for correct connection. (PC-XC50J/XC30J).

CAUTIONS:
1. ONLY USE WITH JVC POWER CORD PROVIDED WITH THIS UNIT TO AVOID MALFUNCTION OR DAMAGE TO THE UNIT. REMOVE BATTERIES WHEN USING THE POWER CORD.
2. BE SURE TO UNPLUG THE POWER CORD FROM THE OUTLET WHEN GOING OUT OR WHEN THE UNIT IS NOT IN USE FOR AN EXTENDED PERIOD OF TIME.
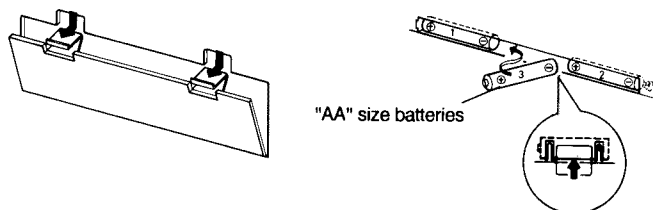
B. Batteries for memory back-up system

Batteries for timer/microprocessor memory

It is recommended that batteries are loaded to prevent the microprocessor memory and timer from being erased when there is a power failure, or when the AC power cord is disconnected.

● **Loading batteries**
Load three "AA" size batteries (optional) into the battery compartment.

"AA" size batteries

● When removing the batteries, push from the bottom as shown by the arrow.

Notes:
● The three "AA" size batteries supply the power to the memory back-up system which prevents the contents of memory being lost when there is a power failure, or the AC power cord is disconnected. Battery power is not consumed when the AC power cord is connected to the household AC outlet.
(When the memory function is activated, the time is not displayed to reduce the power consumption.)
● When the AC power cord is not connected, the batteries should be replaced with new ones approximately every three months. (Connect the AC power cord when replacing batteries in order to backup the memory. However, be sure to switch the power of main unit OFF.)

C. Operation on batteries

● **Loading batteries**
1. Open the battery cover by pulling it toward you while pressing the sections marked by the arrows.
2. Insert 8 "D" size batteries as shown in the diagram.
   * Be careful to insert the batteries with the ⊕ and ⊖ terminals positioned correctly.
3. Replace the cover.
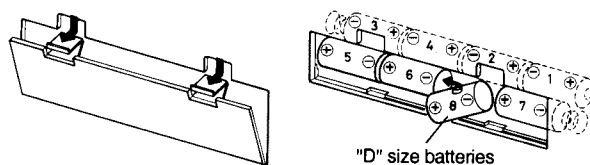
"D" size batteries

Battery replacement
When the battery (▭) indicator lights during battery operation, the batteries are nearly exhausted and should be replaced. (When the battery indicator stays lit for approx. one minute, the unit is switched off.)
● **When loading or unloading the batteries, be sure to switch the power off in DISC CONTROL 1 position to prevent changer malfunction. (When EXTRA CD is used, unload the disc). (See page 22.)**
● When making an important recording, use new batteries (preferably alkaline batteries with a longer service life) to avoid any possible failure.

● For better battery usage
Continuous operation of the unit causes the battery power to be consumed quicker than noncontinuous operation.
Operation of the unit in a cold place causes the battery power to be consumed more quickly than in a warm place.

CAUTIONS:
● **WHEN NOT USING THE UNIT FOR A LONG TIME (MORE THAN TWO WEEKS) OR WHEN ALWAYS USING HOUSEHOLD AC, REMOVE THE BATTERIES TO AVOID A MALFUNCTION OR DAMAGE TO THE UNIT.**
● **WHEN THE JVC POWER CORD PROVIDED WITH THIS UNIT IS CONNECTED, THE POWER IS AUTOMATICALLY SWITCHED FROM THE BATTERIES TO THE HOUSEHOLD AC EVEN WHEN THE BATTERIES ARE LOADED. HOWEVER, REMOVE THE BATTERIES WHEN USING THE POWER CORD.**

CAUTIONS WHEN USING BATTERIES
When batteries are used incorrectly, it may result in the leakage of chemicals from the batteries or they may explode. The following care should be taken;
● Check that the positive (+) and negative (-) terminals of the batteries are positioned correctly and load them as shown in the diagram.
● Do not mix new and old batteries together, or mix different types of batteries.
● Do not try to recharge non-rechargeable batteries.
● Remove the batteries when the unit is not to be used for an extended period of time.
If chemicals from the batteries come in contact with your skin, wash them off immediately with water. If chemicals leak onto the unit, clean the unit completely.

NAMES OF PARTS AND THEIR FUNCTIONS

CD changer section
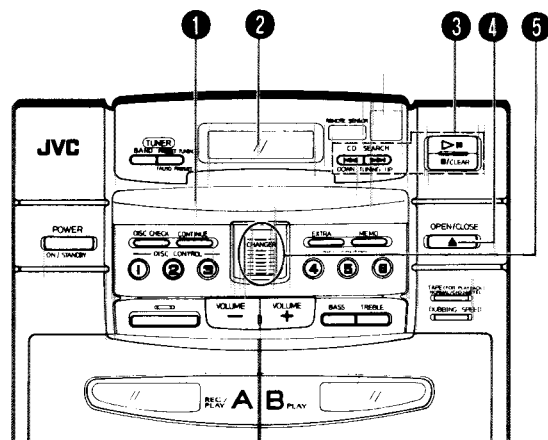
❶ CD tray
❷ Display window (The display is backlit when AC power is supplied. (PC-XC50 only))
  ① Disc mark display
  ② RANDOM playback indicator
  ③ CONTINUE playback indicator
  ④ PROGRAM mode indicator
  ⑤ Repeat playback indicator
  ⑥ EXTRA CD mode indicator
  ⑦ Function/Disc number/Track number display
  ⑧ Track number/Playback time display
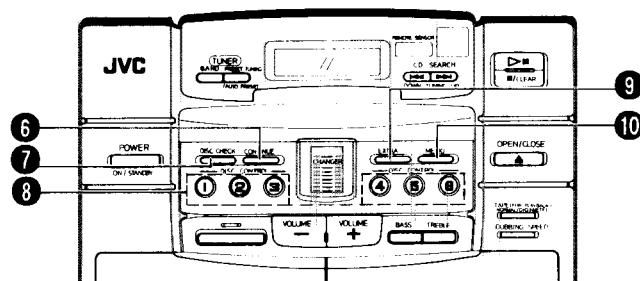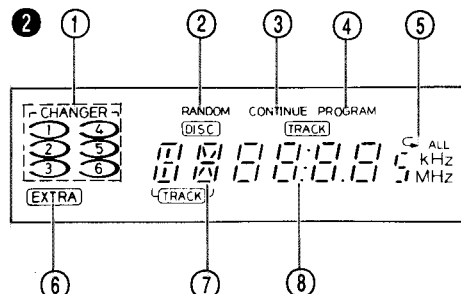❸ CD operation buttons
  Play/pause button (▷ II) :
  Press to play a disc or to stop temporarily.
  Stop/CLEAR button (■/CLEAR) :
  Press to stop playing a disc or cancel programmed playback. This also sets CD mode.
  CD SEARCH buttons (I◀◀ , ▶▶I) :
  Press to locate the beginning of tunes and to start forward/reverse search operations.

❹ CD tray (▲) OPEN/CLOSE button
❺ Disc mode indicators (PC-XC50 only)
  When CD changer is used, the six red indicators light.
  When EXTRA CD is used, one green indicator lights.
❻ CONTINUE playback button
❼ DISC CHECK button
❽ DISC CONTROL buttons (No.1 to No.6)
❾ EXTRA disc button
❿ Memorandum (MEMO) button

General section
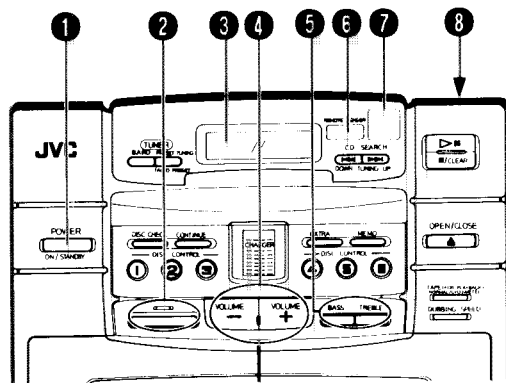
❶ POWER (ON/STANDBY) button
❷ Active Hyper-Bass button and indicator (PC-XC50)
  MULTI-BASS HORN button and indicator (PC-XC30)
❸ Display window
  Volume (VOL) level indicator
  BASS/Treble (TRE) level indicator
  Battery indicator (⊏▭)
❹ VOLUME buttons
  +: Use to increase the volume
  –: Use to decrease the volume
  (control range from VOL 0 to VOL 25)
❺ BASS/TREBLE buttons
❻ REMOTE SENSOR section
❼ POWER indicators (PC-XC50)
  GREEN: POWER ON
  RED : STANDBY
  POWER ON indicator (PC-XC30)
❽ Headphones jack (PHONES) (3.5 mm dia. stereo mini)
  Connect headphones (impedance 16Ω to 1kΩ) to this jack. The speakers are automatically switched off when the headphones are connected.

Tuner/Deck section

Rear panel
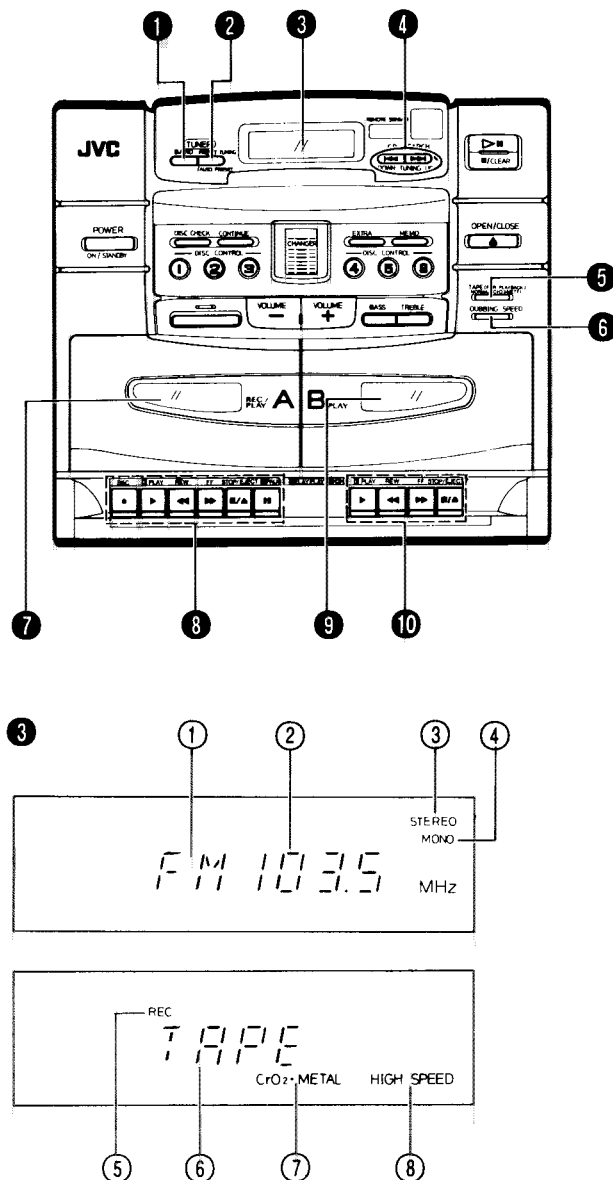
❶ TUNER/BAND button
Press to select tuner mode.
Press to select the band (FM/AM).

❷ PRESET TUNING button
AUTO PRESET button

❸ Display window
① Band indicator (FM/AM)
② Radio frequency display
③ STEREO indicator
④ MONO indicator
⑤ Recording indicator (REC)
⑥ Tape (TAPE) mode display
⑦ CrO2•METAL tape indicator
⑧ HIGH SPEED indicator

❹ TUNING buttons (UP/DOWN)

❺ TAPE (FOR PLAYBACK) switch
Set this switch according to the type of tape to be used.
● Normal tape: (The CrO2•METAL tape indicator goes out.)
Set to this position to listen to a normal (type I) tape.
● CrO2•Metal tape: (playback only) (The CrO2•METAL indicator lights.)
Set to this position to listen to a chrome (type II) or metal (type IV) tape.

❻ DUBBING SPEED switch
● High speed: (The HIGH SPEED indicator lights.)
Set to this position when dubbing at high speed.
● Normal speed: (The HIGH SPEED indicator goes out.)
Set to this position when dubbing at normal speed.

❼ Cassette holder (Deck A)

❽ Cassette operation buttons (Deck A)
○ REC : Press this button with the ► PLAY button to start recording.
► PLAY : Press to play the tape.
◄◄ REW : Press to rewind the tape rapidly.
►► FF : Press to wind the tape forward rapidly.
■/▲ STOP/EJECT : Press to stop the tape. Pressing this button when the tape has stopped opens the cassette holder.
Ⅱ PAUSE : Press to stop the tape temporarily. Press again to release the pause mode.

❾ Cassette holder (Deck B)

❿ Cassette operation buttons (Deck B)
► PLAY : Press to play the tape.
◄◄ REW : Press to rewind the tape rapidly.
►► FF : Press to wind the tape forward rapidly.
■/▲ STOP/EJECT : Press to stop the tape. Pressing this button when the tape has stopped opens the cassette holder.

Rear panel
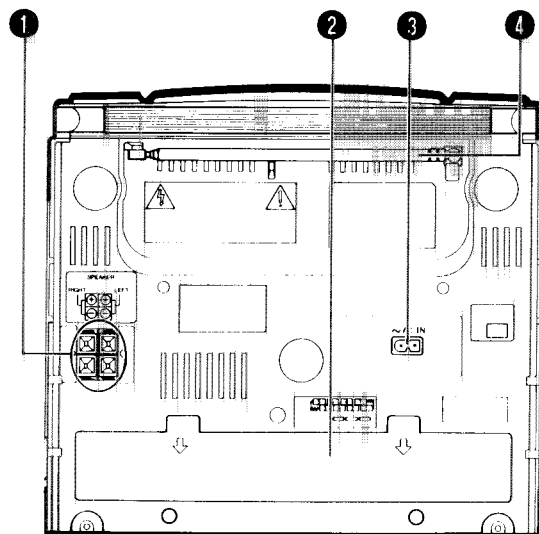
❶ SPEAKER terminals
Connect the provided speakers to these terminals.
❷ Battery compartment cover
❸ AC IN (AC input) jack
❹ Telescopic antenna

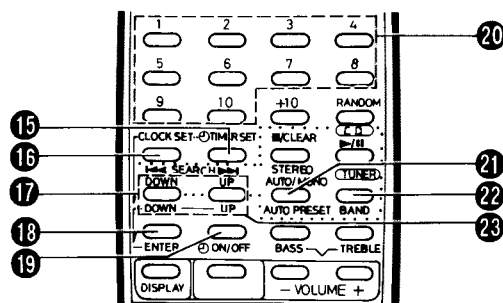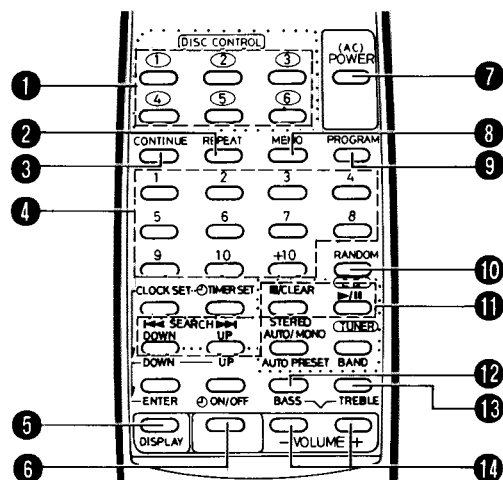## REMOTE CONTROL UNIT

Preparation before use

● **Installing batteries in the remote control unit**
1. Remove the battery cover from the back of the remote control unit.
2. Insert two "AA" size batteries.
   ● Insert the batteries with the ⊕ and ⊖ terminals matching the indication inside the battery compartment.

Insert the ⊖ ends first.
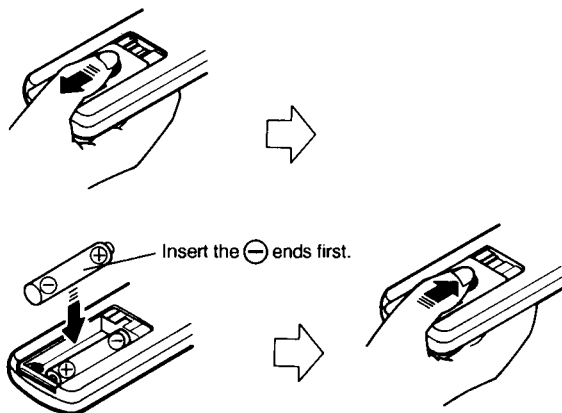
The following operations can be performed using the remote control unit.

● **Check the functions of the operation buttons carefully and operate them correctly.**

3. Replace the cover.

● **Battery replacement**
When the remote control operation becomes unstable or the distance from which remote control is possible becomes shorter, replace the batteries with new ones.

Using the remote control unit

To use the remote control unit, point it at the REMOTE SENSOR and press the buttons gently and firmly. Remote control operation is possible within about 7 m (approx. 23 ft). However, since the remote control range is less when the unit is used at an angle, use directly in front of the REMOTE SENSOR, as far much possible.
Do not expose the REMOTE SENSOR to strong light (direct sunlight or artificial lighting) and make sure that there are no obstacles between the REMOTE SENSOR and the remote control unit.

❶ DISC CONTROL buttons (No.1 to No.6)
❷ REPEAT button
❸ CONTINUE playback button
❹ Track (tune) number buttons (No.1 to No.10, +10)
❺ DISPLAY button
❻ ACTIVE HYPER-BASS button (PC-XC50)
   MULTI-BASS HORN button (PC-XC30)
❼ POWER (AC) button
   ● When power is supplied from the batteries, even when the button is pressed, the main unit will not be switched on. Switch on the POWER button of the main unit first, then perform operations.
❽ MEMO button
❾ PROGRAM button
❿ RANDOM button
⓫ CD operation buttons
   CD ►/❚❚ : CD mode/play/pause button
   ■/CLEAR : stop/clear button
   SEARCH I◄◄ , ►►I : To scan to the beginning of a tune and to start forward or reverse search.
⓬ BASS button
⓭ TREBLE button
⓮ VOLUME buttons (+, −)
⓯ (⏱) TIMER SET button
⓰ CLOCK SET button
⓱ UP and DOWN buttons
⓲ ENTER button
⓳ Timer (⏱) ON/OFF button
⓴ Preset station buttons (No. 1 to No. 10)
㉑ STEREO AUTO/MONO button
   AUTO PRESET button
㉒ TUNER/BAND button
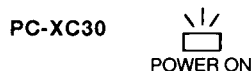㉓ Tuning (UP and DOWN) buttons

SWITCHING THE POWER ON/OFF

TUNER/BAND button

POWER button

Play/pause button

OPEN/CLOSE button

DISC CONTROL buttons

PLAY ► buttons
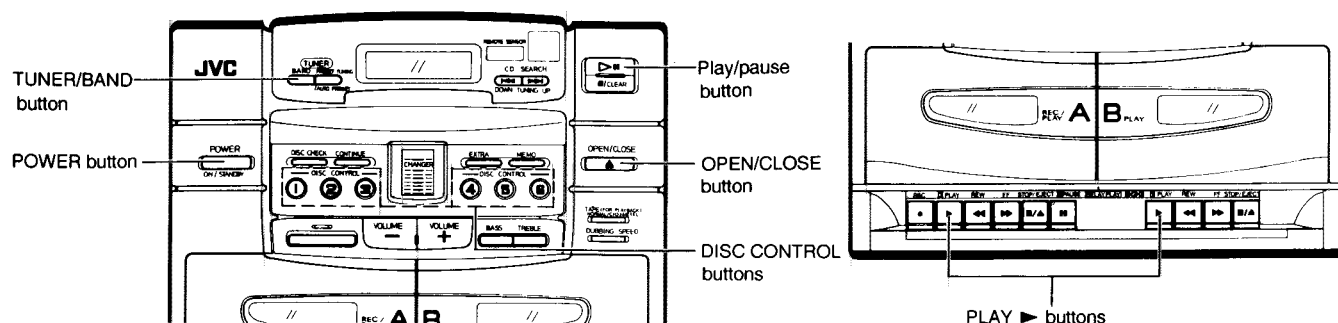
Switching the power on/off

● Switching on:
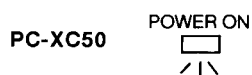
● Conexión

PC-XC50	POWER ON	The green indicator lights.
PC-XC30	POWER ON	The red indicator lights.

● Switching off:
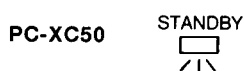
● Desconexión

PC-XC50	STANDBY	The red indicator lights. (The indicator does not light when DC power is supplied.)
PC-XC30	POWER ON	The red indicator goes out.

COMPU PLAY (only when AC power is used)

Even when the power is set to STANDBY, pressing the button shown below switches on the power and selects the source.

	Function mode	Operations
⊳ll DISC CONTROL ① ② ③ ④ ⑤ ⑥	CD	When this button is pressed with a CD loaded, CD playback begins.
(Deck A) ☐PLAY ► or ☐PLAY ► (Deck B)	TAPE	When this button is pressed with a tape loaded, tape playback begins.
TUNER BAND	TUNER	When this button is pressed, the tuner is engaged

When the CD tray OPEN/CLOSE (▲) button is pressed, the source sound does not switch over, the CD tray can open or close.

When the timer display (⏲) is shown, the power of this unit is not switched on even when the PLAY ► button of deck is pressed.

Notes:
1. When switching off the power, be sure to press the power button.
2. The COMPU PLAY button on the remote control has the same function as the main unit.
3. When the CD tray opens and the Play/pause (⊳ll) button is pressed, the CD tray closes and the CD play starts.
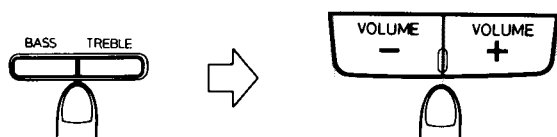
VOLUME, TONE AND OTHER CONTROLS

VOLUME button
+ : Use to increase the volume.
− : Use to decrease the volume.
(control range from VOL 0 to VOL 25)
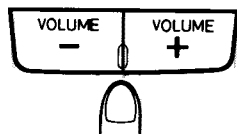
BASS/TREBLE button
To set the bass or treble level, press the corresponding button and adjust it using the VOLUME buttons. The level setting ranges are from -6 to 6.
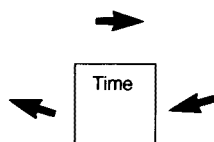
DISPLAY button (Using the remote control unit)
Use this button to switch between the function and time display.
● When using the tuner, press this button to display the tuned frequency and the time.
● When using a tape, press this button to show "TAPE" and the time.
● When using CD mode,
1. The display shows the following when CDs are not rotated with this button pressed:

Total number of tracks (tunes)

Total playback time

2. The display shows the following when the CDs are played with this button pressed:
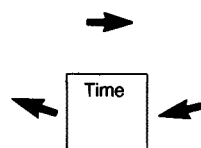
Track (tune) number

Displays elapsed playback time of each tune being played back

ACTIVE HYPER-BASS button (PC-XC50)
ON : The Active Hyper-Bass indicator lights. Set to this position when listening to Active Hyper-Bass sound.
OFF : The Active Hyper-Bass indicator goes out. Set to this position when Active Hyper-Bass sound is not required.

MULTI-BASS HORN button (PC-XC30)
ON : The MULTI-BASS HORN indicator lights. Set to this position when listening to MULTI-BASS HORN sound.
OFF : The MULTI-BASS HORN indicator goes out. Set to this position when MULTI-BASS HORN sound is not required.

CONCERNING COMPACT DISCS

Since dirty, damaged and warped discs may damage the unit, care should be taken of the following:

1. Usable compact discs
Use compact discs with the mark shown.

2. Notes on handling discs
- Do not touch the reflective recorded surface.
- Do not stick anything to or write anything on the label side.
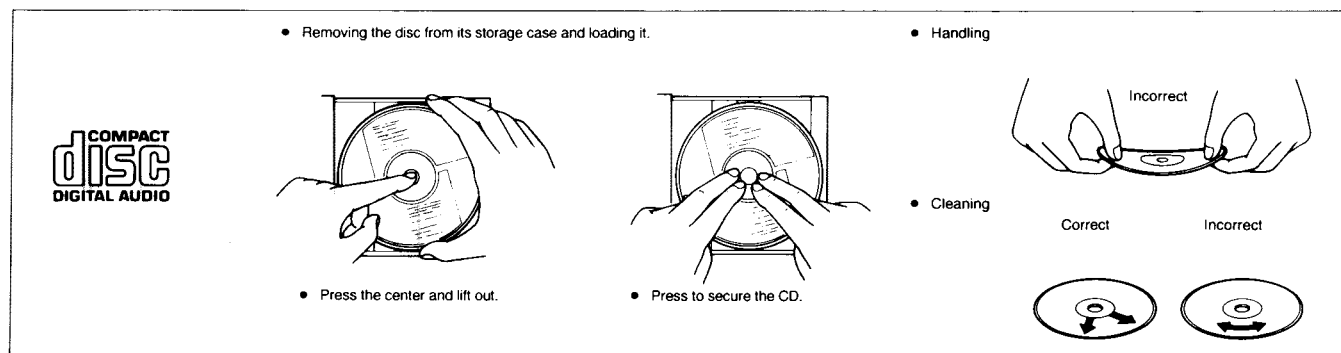- Do not bend compact discs.

3. Storage
- After removing a disc from the unit, be sure to put it back in its case.
- Do not expose discs to direct sunlight, high temperatures from a heater, etc., high humidity, or dust.

4. Cleaning discs
Before loading a disc, wipe off any dust, dirt or fingerprints with a soft cloth. Discs should be cleaned by wiping radially, from the center to the edge.

- **Never use thinner, benzine, record cleaner or antistatic spray.**

- Removing the disc from its storage case and loading it.
- Handling

COMPACT disc DIGITAL AUDIO

- Press the center and lift out.
- Press to secure the CD.
- Cleaning

Incorrect

Correct   Incorrect

PLAYING COMPACT DISCS

- When this unit is used for the first time (or not used for an extended of period of time with an AC power cord disconnected) and the POWER switch is turned ON, CD changer mode is engaged. Disc check operation starts automatically to check if a disc is in the disc holder. (The source sound cannot be heard during disc check operation.)
- This unit can be used in two different modes.
  1) In CD changer mode, it is possible to load up to six 12 cm (5") CDs in the disc holder. Various kinds of CD play can be performed.
  2) In EXTRA mode, when 6 CDs are loaded in the disc changer section, a CD can be played without using the changer section.
- 8 cm (3-3/16") CDs
  1) 8 cm (3-3/16") CDs can be used in this unit. (Do not use a CD adapter, as it may cause a malfunction.)
  2) When an 8 cm CD is loaded, the CD changer cannot be operated. When the DISC CONTROL button is pressed, the CD tray opens for disc unloading.

CD changer operation

Operate in the order shown
- **Loading Discs**
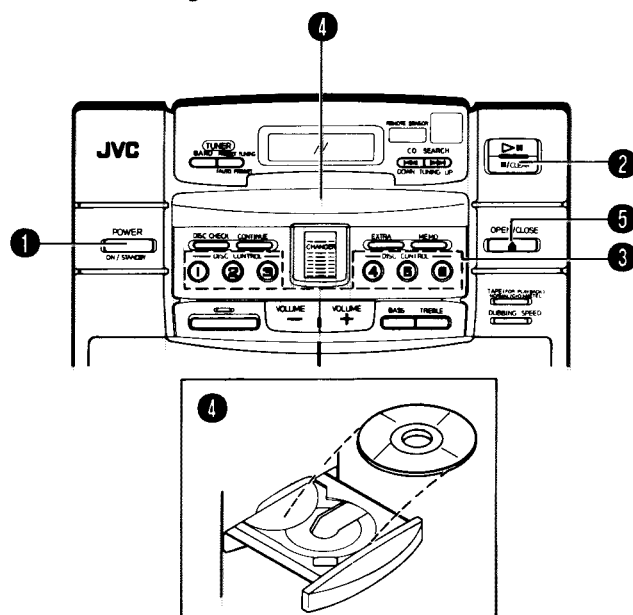
❶ Set the POWER button to ON.
❷ Press the ■/CLEAR button to set CD mode.
❸ Press the required DISC CONTROL button (No. 1 to No. 6) and the CD tray opens.
❹ Load a disc with the label side facing up.
❺ Press the ▲ OPEN/CLOSE button to close the CD tray. (The mark which shows that the disc is loaded is shown in the display.)
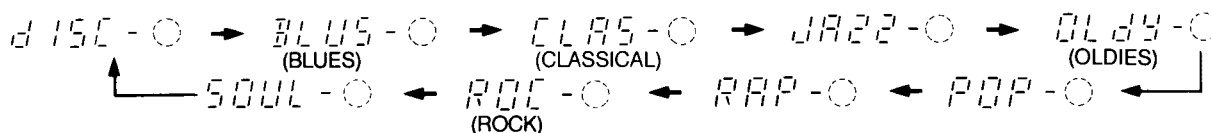- Repeat procedures ❸ to ❺ to load the other discs.

Notes:
- When loading discs, be sure to place them correctly on the tray to prevent a malfunction.
- When an "Error" is displayed, press the ▲ OPEN/CLOSE button to erase the error message and perform the operation again.

Memorandum (MEMO) button
The type of music on the loaded CDs (in the CD changer) can be stored using this button. Each time the MEMO button is pressed, the display changes as follows:

MEMO   Memorandum (MEMO) button

d I5C -○ → *BLU5 -○* → *CLA5 -○* → *JA22 -○* → *OLdY -○*
(BLUES)   (CLASSICAL)   (JAZZ)   (OLDIES)

50UL -○ ← *RO[-○* ← *RAP -○* ← *POP -○*
(ROCK)

❶ Press the DISC CONTROL button (No. 1 to No. 6) corresponding to the specified disc.
❷ After CD play starts, select the correct type of music.

DISC CHECK button
Check the type of music on the loaded CDs (in the CD changer) using this button. When the DISC CHECK button is pressed, the type of music is shown in sequence.

Continuous play

How to play all tracks
Operate in the order shown
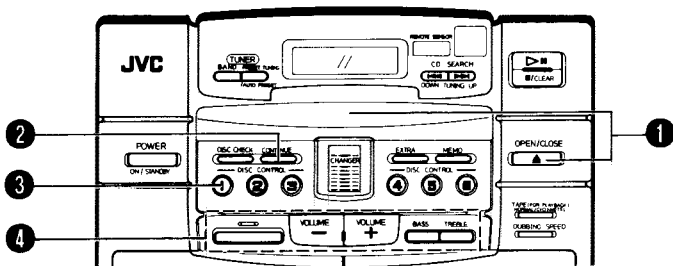
❶ Load the required disc into the disc holder of the CD changer. (See page 23.)
❷ Press the CONTINUE button to set continuous playback mode.
❸ Press the No. 1 DISC CONTROL button to start playback.
❹ Adjust.
- CD play starts from disc No.1 and continues till the last tune of the last disc in the disc holder.

● Unloading Discs

❶ Press the required DISC CONTROL button of the disc to be unloaded.
❷ Press the ▲ OPEN/CLOSE button to open the CD tray and unload the disc.
- Repeat procedures ❶ and ❷ to unload the other discs.

❸ Press the MEMO button to select the type of music corresponding to the disc music.
- After a short period, when the display changes, setting is completed.
- Repeat procedures ❶ to ❸ to specify the other discs.

To stop play

● **To stop in the middle of a disc**
During playback, press the ■/CLEAR button to stop play.

● **To stop a disc temporarily**
Press the ▷❙❙ button to stop play temporarily and the indication blinks. When pressed again, play resumes from the point where it was paused.

Notes:
- The following indication may be shown when a disc is dirty or scratched, or when the disc is loaded upside down.
In such a case, check the disc and insert again after cleaning the disc or turning it over.

□□□□□
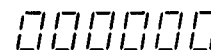
- When a scratched disc is played, the disc stops during playback and no sound can be heard.
- If mistracking occurs during play, lower the volume.
- Mistracking may occur if a strong shock is applied to the unit or if is used in a place subject to vibrations (i.e. in a car travelling on a rough road).
- **Do not use the unit at excessive high or cold temperatures. The recommended temperature range is from 5°C (41°F) to 35°C (95°F).**

DISC CONTROL button

● Direct Disc Selection

Press the DISC CONTROL button (No.1 to No. 6) corresponding to the No. of the required disc.

Example: (to designate Disc 5)
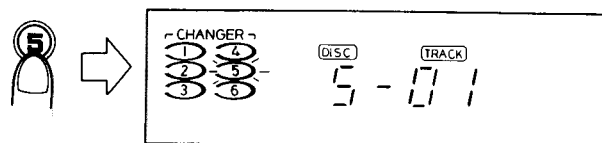
The tracks on the designated disc are played in sequence.

● When the unit is in continuous playback mode, by pressing the CONTINUE button, the next disc will be played after the end of the disc being played.

Note:

● When "PROGRAM" is shown in the display and the direct select operation is performed, the CD cannot be played.

Skip playback

●. During playback, it is possible to skip forward to the beginning of the next tune or back to the beginning of the tune being played or the previous tune; when the beginning of the required tune has been located, play starts automatically.

To listen to the next tune ...

Press the ►►◄ button once to skip to the beginning of the next tune.

To listen to the previous tune ...

Press the ◄◄◄ button to skip to the beginning of the tune being played back and press again to skip to the beginning of the previous tune.

* When disc select and skip operations are performed in sequence, the required track from a required disc can be selected.

## Search playback
(to locate the required position on the disc)

● The required position can be located using fast-forward or reverse search while playing a disc.

Keep pressing for fast-reverse search — CD SEARCH — Keep pressing for fast-forward search
DOWN TUNING UP
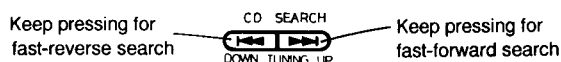
● Hold down the button; search play starts slowly and then gradually increases in speed.
● Since low-volume sound (at about one quarter of the normal level) can be heard in the search mode, monitor the sound and release the button when the required position is located.
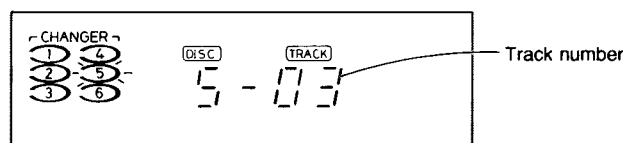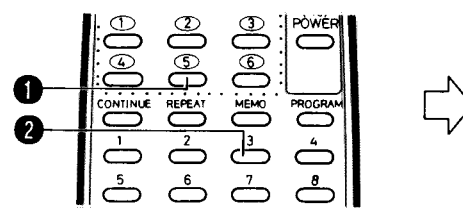
Direct access playback using the remote control

● Example 1 (to designate Disc 3)
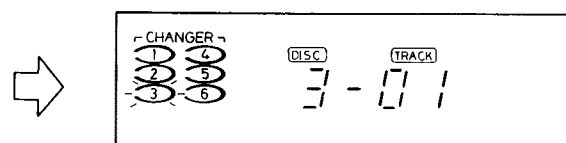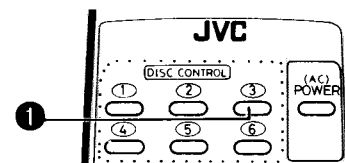
❶ Designate the required disc using the DISC CONTROL buttons (No. 1 to No. 6).
  ● CD play starts.

● Example 2 (to designate the 3rd tune of Disc 5)

Track number

❶ Designate the required disc using the DISC CONTROL buttons (No.1 to No. 6).
❷ The track number is displayed and the required tune is selected using the TRACK button.
  ● CD play starts.

● To designate tune numbers 1 to 10, press the track number button corresponding to the track (tune) number.
● To designate tune numbers 11 or higher, press the +10 button the required number of times, then the track number button. (Example; To designate the 20th tune, press the +10 button once, then press track number button 10.)

* +10 button:
  Each time this button is pressed, the number increases by 10. First press this button to set the 10 digits, then press the track number button to set the 1 digits.

Repeat playback (Using the remote control unit)

Press the REPEAT button before or during play. It is possible to perform repeat playback of a single tune, all tunes on one disc, or all tunes on all discs in the disc changer.
Each time the REPEAT button is pressed, the mode will change from a single tune (↻), to all tunes (↻ ALL), to clear mode, in this order.

↻ Single tune ⇨ ↻ ALL All tunes ⇨ Goes off

Repeat playback is released.

- **Single tune repeat (⟳)**
  The current or specified tune will be played repeatedly.

- **All tune repeat of one disc (⟳ ALL)**
  All tunes on the current or specified CD will be played repeatedly.

- **All tune repeat of all discs (⟳ ALL. CONTINUE)**
  When the CONTINUE button is pressed during "⟳ ALL" mode, CD play starts from the current or specified tune and all tunes on all discs will be played repeatedly.

Random playback (Using the remote control unit)

Press the RANDOM button before or during play. It is possible to perform random playback from one disc or all discs.

- **One disc random (RANDOM, ⟳ ALL)**
  Press the RANDOM button to randomly plays tracks on the current or specified disc, except in continuous mode.
- **All disc random (RANDOM, CONTINUE, ⟳ ALL)**
  Press the RANDOM button in continuous play mode to randomly selects and plays tracks from all of the discs in the CD changer.

Programmed playback (using the remote control)

- Up to 20 tunes can be programmed to be played in any required order from one disc or all discs in the holder.

- Example 1 (When programming from the 3rd disc, the 2nd tune to be played first, and the 5th tune next, then the 12th tune.)

Example 1 (Disc containing more than 12 tunes)
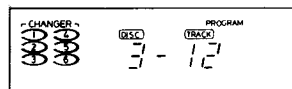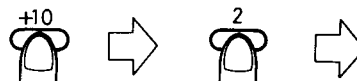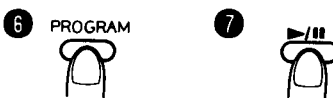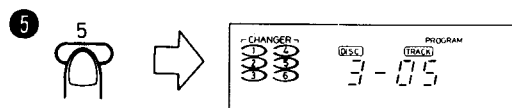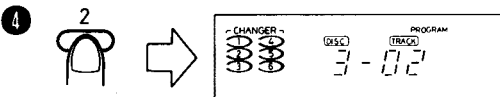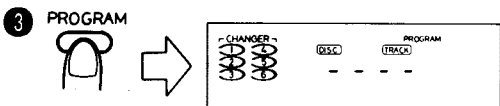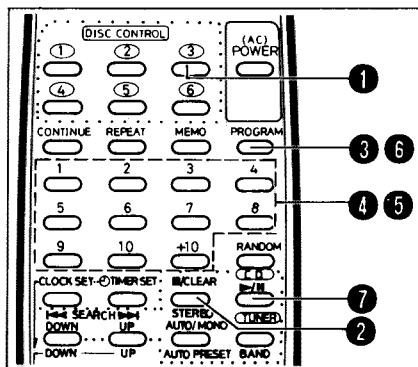
❶ Press the No.3 DISC CONTROL button.
❷ Press the ■/CLEAR button.
❸ Press the PROGRAM button to set programming mode.
❹ Press to designate the required track number.
❺ Designate the remaining tunes by pressing the track number buttons.
❻ Press the PROGRAM button to confirm the details of the program.
  - Repeat from step ❷ to readjust the program.
  - Repeat from step ❶ to add to the program.
❼ Press the ►/II button when programming is completed. Programmed playback starts.

- Example 2 (With programming from more than 2 discs, the 3rd tune of disc 1 is to be played first, and the 6th tune of disc 1 next, then the 12th tune of disc 6.)

Example 2
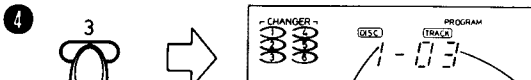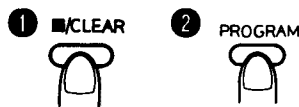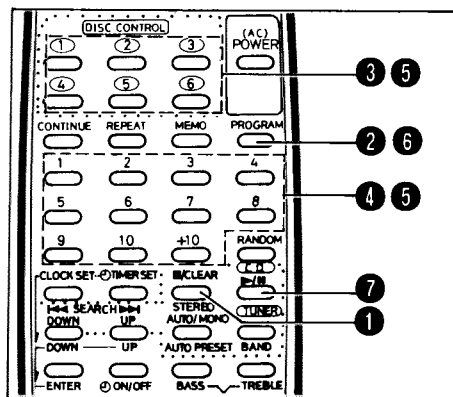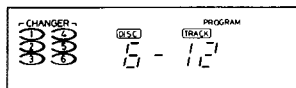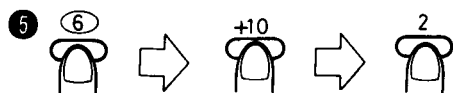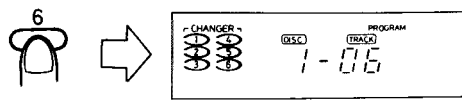
● Press the ■/CLEAR button.
● Press the PROGRAM button to set programming mode.
● Designate the required disc using the DISC CONTROL buttons (No. 1 to No. 6).
● Designate the required tune using the track buttons (No. 1 to No. 10, +10).
● Repeat procedures ● and ● to designate the other tunes.
● Press the PROGRAM button to confirm the details of the program.
  ● Repeat from step ● to readjust the program.
  ● Repeat from step ● to add to the program.
● Press the ►/II button when programming is completed.

To confirm the details of a program...
Press the PROGRAM button in stop mode: the tunes making up the program will be displayed in programmed order.

To clear the programmed tunes ...
Press the ■/CLEAR button before playing the disc. During programmed playback, press this button twice. When the CD tray is opened, the programmed tunes are cleared automatically.

Notes:
1. Programming 21 or more tunes is impossible.
2. When performing timer playback in the order of "Programmed play", do not press the ►/II button in the above procedure.

EXTRA-CD operations

When 6 discs are loaded in the CD changer of this unit, use this button to listen to the extra-CD.
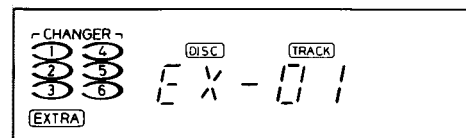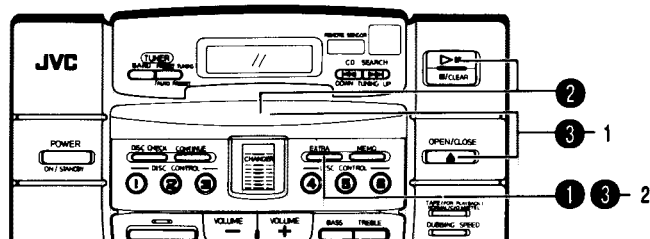
● Press the EXTRA button during CD mode and the CD tray opens.
● Load a disc and press the ▷II button.
  :
● Unload the disc after CD play has finished, by pressing the ▲ OPEN/CLOSE button. Then, press the EXTRA button to switch back to CD changer mode.

Notes:
● When the EXTRA-CD is loaded, the CD changer cannot be used. When the DISC CONTROL button is pressed, the CD tray opens, so unload the disc.
● When "PROGRAM" is shown in the display, even if the EXTRA button is pressed, extra mode is not engaged. Clear the program mode and press the EXTRA button.

Repeat playback (Using the remote control unit)

Press the REPEAT button before or during play. A single tune or all tunes can be repeated.

● **Repeat playback of a single tune (⊂)**
  The tune being played back will be heard repeatedly.

● **Repeat playback of all tunes (⊂ ALL)**
  When playing back an entire disc or programmed tunes, all tunes or the programmed tunes will be heard repeatedly.

Random playback (Using the remote control unit)

Press the RANDOM button, tunes on the disc are played, in random order.

Skip, Search and Programmed playback

Refer to the CD changer section for these operations.
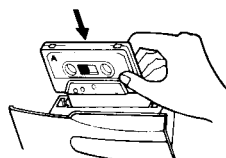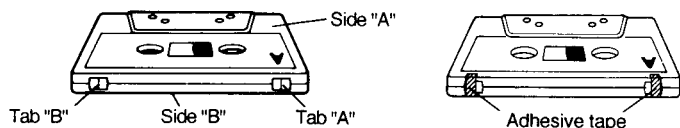

CASSETTE TAPE

Cassette tape
1. Loose tape may cause trouble. With a pencil, gently tighten the tape as shown.
2. To prevent recordings from being erased accidentally, remove the tab(s) with a screwdriver. Reseal the slots with adhesive tape to erase and re-record after the tabs have been broken off.

Cassette loading
1. Press the STOP/EJECT (■/▲) button to open the cassette holder.
2. Load a cassette as shown.
3. Close the cassette holder by pressing it gently. Listen for the click that tells you that you've closed the holder securely.

Turn the pencil to tighten the tape.

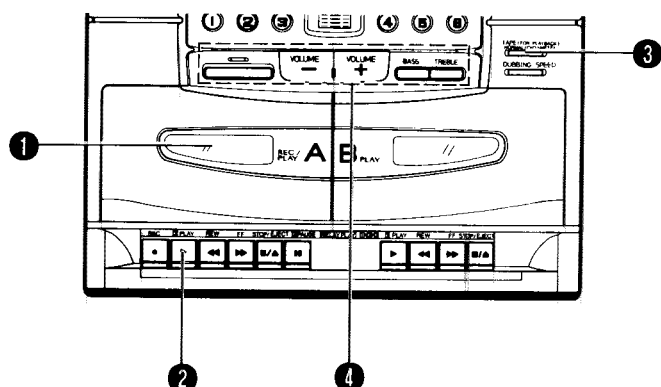Side "A"

Tab "B"   Side "B"   Tab "A"   Adhesive tape
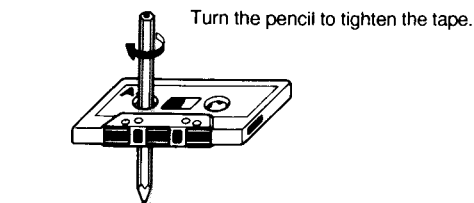
CASSETTE PLAYBACK

(The example shows Deck A)
Operate in the order shown

❶ Load a cassette tape in Deck A.
❷ Press to start playback. (The power is switched on, TAPE mode is engaged and tape playback starts.)
  ● When battery power is used, switch on the POWER button first, then perform operations.
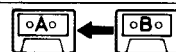❸ Set the TAPE switch as required.
❹ Adjust.

● **Playback in Deck B**
  The previous procedures ❷ through ❹ also apply to Deck B when a cassette is loaded in Deck B. When Decks A and B are simultaneously set to the play mode, only the playback sound of Deck B is heard.

Notes:
1. When the power is turned off while the tape is still running, cassette operation buttons which are depressed do not return to the original positions.
   Press the ■/▲ STOP/EJECT button to stop the tape running before turning off the power.
2. Avoid operating the FF or REW button on the deck during playback of the other deck.
3. When switching to tape playback while playing a CD, tape sound will be heard after a few seconds.

RELAY PLAYBACK

(From Deck B to Deck A)
Operate in the order shown
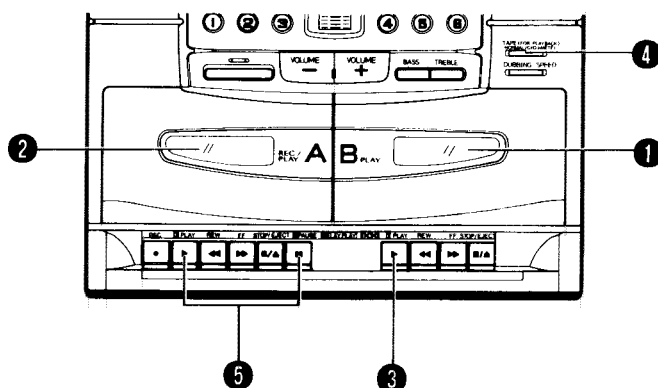
❶ Load a cassette tape in Deck B.
❷ Load a cassette tape in Deck A.
❸ Press the ▶PLAY button on Deck B.
❹ Set the TAPE switch as required.
❺ Set Deck A to the play-pause mode.
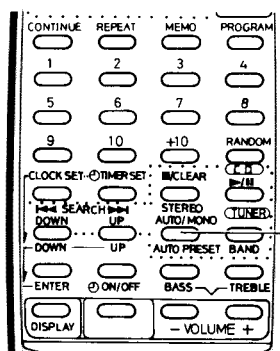
* When Deck B stops, Deck A's pause mode will be released and it will start playback. When Deck A stops automatically, relay playback will be released.
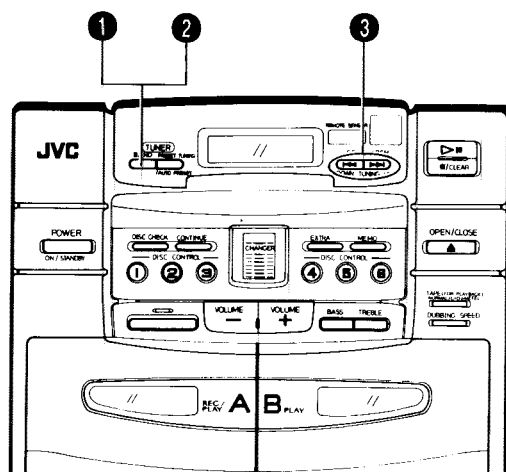
Notes:
1. Use the same type of tape in Decks A and B during this mode.
2. When battery power is used, switch on the POWER button first, then perform operations.

RADIO RECEPTION

Operate in the order shown

STEREO AUTO/MONO button.

❶ Press the TUNER/BAND button.
  • The power is switched on and a band and radio frequency will be shown in the display.
  • When battery power is used, switch on the POWER button first, then perform operations.
❷ Select the band (FM or AM).
❸ Tune to the required station.

STEREO AUTO/MONO button

Auto mode:
Set to this position when listening to or recording an FM stereo broadcast. The STEREO indicator lights when the FM stereo broadcast is received.

MONO:
Set to this position when FM stereo reception is noisy.
When another station is tuned to in the MONO mode using the TUNING UP/DOWN or AUTO PRESET button, the unit automatically enters Auto mode.

• **Seek tuning**
  Press the UP or DOWN button for one second or more; the unit enters the seek tuning mode and tunes to higher or lower frequencies, and when the broadcast is received, it stops tuning automatically and the broadcast can be heard.

• **Manual tuning**
  Each time the UP or DOWN button is pressed, the unit steps through the current frequency band. Tuning is in steps of 100 kHz for FM and 10 kHz for AM.

Press to move to lower frequencies ——— Press to move to higher frequency

DOWN TUNING UP

Notes:
• When switching to tuner mode while playing a CD, tuner sound will be heard after a few seconds.
• When seek tuning to the required station is not possible because it is broadcasting too weak a signal, press the UP or DOWN button momentarily to perform manual tuning.
• When the power is set to STANDBY, or another mode (TAPE or CD) is selected, the last tuned frequency is stored in memory. When the power is switched on again and TUNER/BAND button is pressed, the same station will be heard.

Auto preset tuning

This function scans the current band (FM or AM), detecting frequencies used to broadcast signals, and stores the first 10 frequencies in memory automatically.
• Press the AUTO PRESET button for more than 2 seconds. The frequencies of stations broadcasting signals can be preset automatically in the order of increasing frequency.(10 stations in each band (FM and AM)).

Presetting stations
(using the remote control unit)

10 stations in each band (FM and AM) can be preset as follows:
• Example (when presetting an FM station broadcasting at 103.5 MHz to preset button "10")
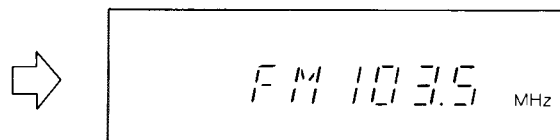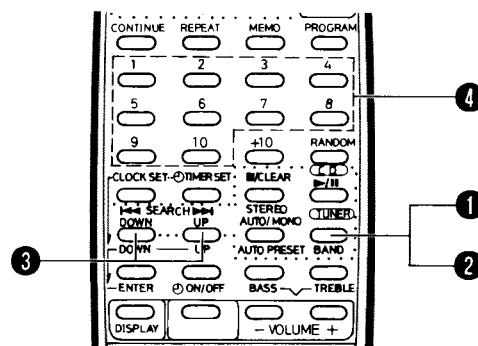
❶ Press the TUNER/BAND button.
❷ Select the FM band using the TUNER/BAND button.
❸ Tune to the required station.
❹ Press preset button "10" for more than 2 sec. (When "10" blinks in the preset station display, the station has been preset.)

• Repeat the above procedure for each of the other stations, using a different preset button each time.
• Repeat the above procedure for the AM band.

• **To change preset stations**
  Perform step ❹ above after tuning to the required station.

Notes:
• The previous preset station is erased when a new station is set as the new station's frequency replaces the previous frequency in memory.
• When listening to an AM broadcast, noise may be heard if the remote control is used.

Preset tuning

• The stations must be preset before this operation can be performed.

(Using the controls of the main unit)

① Press the TUNER/BAND button.
② Select the band (FM or AM) using the TUNER/BAND button.
③ Press the PRESET TUNING button to select the required preset station.

(using the remote control unit)

① Press the TUNER/BAND button
② Select the band (FM or AM) using the TUNER/BAND button.
③ Press the required preset station buttons (No.1 – No.10).
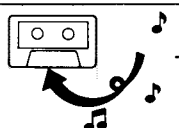● The preset station number and frequency corresponding to the button pressed are shown.

Using the antennas

FM

AM
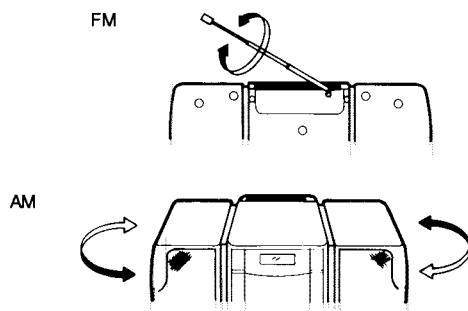
Note:
The built-in ferrite core antenna can pick up interference from television receivers in the neighborhood and thereby disturb AM reception.

RECORDING

● In recording, the ALC circuit automatically optimizes the recording level; adjustment of the recording level is unnecessary.
● Check that the safety tab on the cassette tape is not broken off.

Note:
This unit has recording characteristics suitable for normal tapes. Normal tapes have different characteristics from CrO2 and metal tapes.

Synchronized recording with the CD player

● In this system, the CD player starts playback when the cassette deck enters the recording mode.

Operate in the order shown
(Recording from the CD changer)
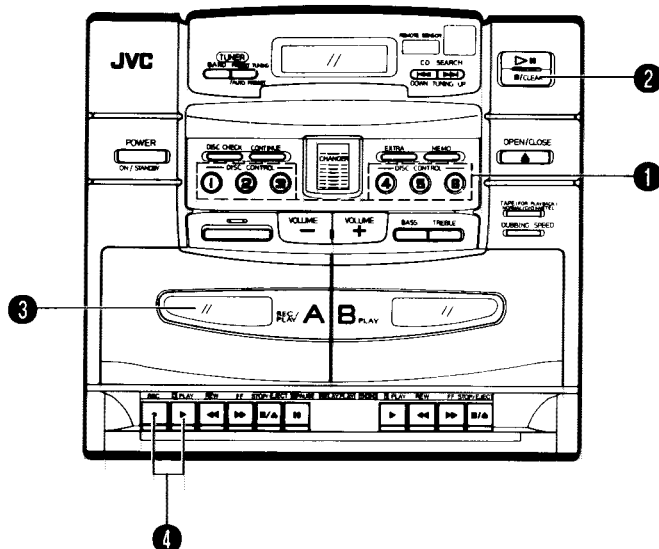
❶ Press the DISC CONTROL button corresponding to the disc to be recorded.
❷ Press the ■/CLEAR button to set stop mode.
❸ Load a cassette in Deck A. (Wind past the leader tape before starting recording.)
● When programmed playback is required, program the required tunes using the remote control. (See page 29.)
● Select tunes with a total playing time which does not exceed the tape length.
❹ Press the ○ REC and ► PLAY buttons together; synchronized recording will start.

● Non-recorded sections of approx. 4 seconds are automatically left between tunes.
● When the tape reaches the end first, the CD player stops automatically; when the CD player stops first, the tape continues running. In this case, press the ■/▲ STOP/EJECT button to stop the tape.

● During synchro recording, the ▷Ⅱ and SEARCH buttons do not function.

(Recording from the EXTRA-CD)
Load the EXTRA-CD and press the ■/CLEAR button to set stop mode, and press the O REC and ► PLAY buttons together.

● **When automatic spacing between tunes is not required...**
Perform the following after finishing the previous operation (❶ to ❸).
① Press the ▷Ⅱ PLAY/PAUSE button of the CD player twice. The CD player enters the pause mode.
 ● When the CD player is in the all repeat mode (⊂ ALL), release the mode.
② Press the O REC and ►PLAY buttons simultaneously.
 Now, the CD player starts playback simultaneously.

Notes:
● Depending on the disc used, blanks of a specified length may be left between tunes.
● When synchro recording is performed using more than two discs, non-recorded sections of approx. 4 seconds are automatically left on the tape when changing the disc.

It should be noted that it may be unlawful to re-record pre-recorded tapes, records, or discs without the consent of the owner of copyright in the sound or video recording, broadcast or cable programme and in any literary, dramatic, musical, or artistic work embodied therein.

Erasing

When recording on a pre-recorded tape, the previous recording is automatically erased and only the new material can be heard when the tape is played.
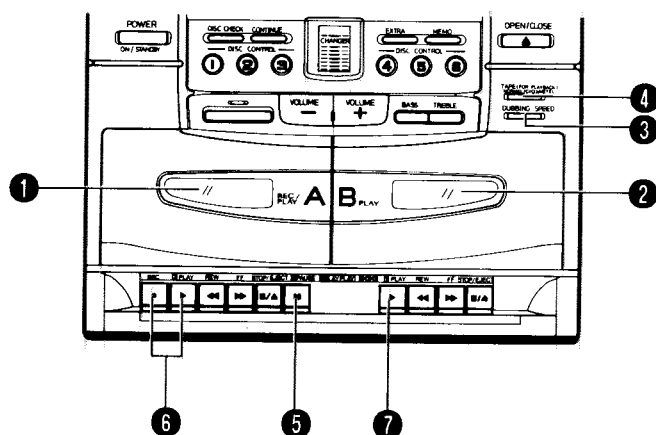**To erase a tape without making a new recording...**
Press the ► PLAY button of the deck to set to the TAPE mode and press the O REC and ► PLAY buttons together after pressing the stop button.

DUBBING (SYNCHRO START DUBBING)

Normal and high-speed dubbing can be done from Deck B to Deck A.

Operate in the order shown

❶ Load a cassette tape in Deck A. (Refer to the note on page 38.)
❷ Load a pre-recorded cassette in Deck B.
  • Lightly press the ► PLAY button to set to TAPE mode. (The button should not be locked.)
❸ Set to NORMAL SPEED or HIGH SPEED.
❹ Set to correspond to the type of tape in Deck B.
❺ Press the II PAUSE button.
❻ Press the O REC button with the ► PLAY button. (Record-pause mode.)
❼ Press the ► PLAY button. (Synchronized dubbing will start.)

Notes:
1. Television receivers placed close to this unit may cause interference on the recorded signal when this unit is used in the high-speed dubbing mode. If this happens, either turn off the television receiver or use the normal-speed dubbing mode.
2. With Deck A in the record-pause mode, the II PAUSE button is released when Deck B enters the stop mode.

Recording from the radio

Operate in the order shown
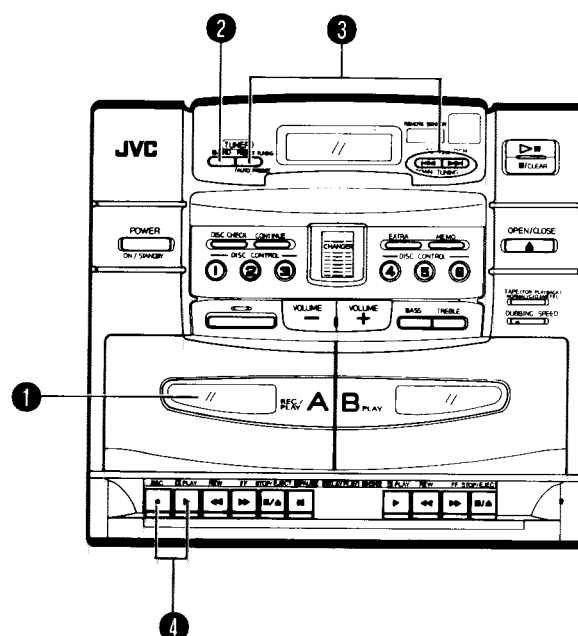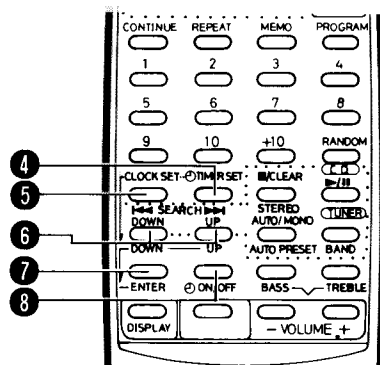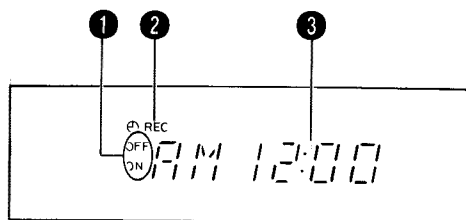

❶ Load a cassette. (Deck A)
❷ Press the TUNER/BAND button.
❸ Tune to the required station.
❹ Press the O REC button with the ► PLAY button.

• To stop recording temporarily, press the II PAUSE button. To resume recording, press the II PAUSE button again.

CLOCK/TIMER ADJUSTMENT

(Using the remote control)

Names of parts in the clock/time section, and their functions:

❶ Timer indicator (ON/OFF)
❷ Timer mode indicator
❸ Time display
❹ (⏱) TIMER SET button
❺ CLOCK SET button
❻ DOWN/UP buttons
❼ ENTER button
❽ Timer (⏱) ON/OFF button

Setting the current time
(when the unit is used for the first time)

(Example: to set the clock to PM 1:15.)

① Connect the AC power cord; "AM 12:00" will blink in the display.
② Set the POWER button to on.
  ● CD changer mode is engaged. Disk check operation starts automatically to check if a disc is in the disc holder.
③ Press the CLOCK SET button.
④ Set to PM 1:15 by pressing the UP/DOWN buttons. (When the button is kept pressed, the minute/hour indication changes continuously.)
⑤ Press the ENTER button; the display returns to the previous mode.
● Each time the hour's digits change from 11 to 12, the display alternates between AM and PM. (12 midnight is indicated as "AM 12:00 and 12 noon is indicated as "PM 12:00.)

● To set to the nearest second...
Press the ENTER button while when you hear the time signal from a TV or radio.

Notes:
● Before performing timer recording or playback, it is necessary to set the current time.
● When the power cord is plugged in again after being disconnected or power is restored after a power failure, "AM 12:00" will blink in the display. Set the current time again.

Setting the timer

● The current time must be set before the timer can be used.
❶ Set the POWER button to on.
❷ Press the (⏱) TIMER SET button.
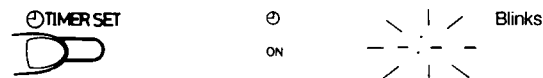
❸ Set the timer start time.
(Example: when the timer start time is set to PM 12:15.).

Press to set the start time.
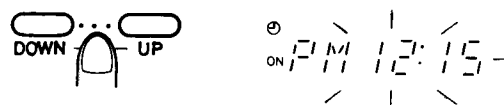
❹ Set the timer stop time.
(Example: when the timer stop time is set to PM 1:15.).

Press to set the timer off time.

- The unit enter the previously engaged mode and timer setting is complete.
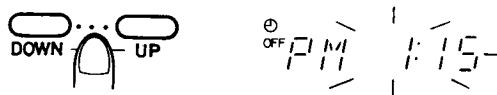
● To check the timer setting
1. Press the (☉) TIMER SET.
2. Press the ENTER button to check the timer mode.
3. When the previous engaged mode is displayed, timer setting has been completed.

Notes:
- When the timer is set incorrectly, perform "Setting the timer" from the beginning.
- When the timer is set, "-:--" in the display is replaced by the input digits.
- When the timer on and off times are set to the same time, the timer operates for 2 hours and then the unit is switched off.

TIMER OPERATIONS

Timer recording

- The current time must be set correctly before you set timer recording.
- Make sure that the erase protection tabs of the cassette have not been broken off.

Operations
1. Set the POWER button to on.
2. Load a cassette in Deck A.
   - Insert the cassette with the side to be recorded facing out.
3. Set the timer start and stop times in this order. (Refer to "Setting the timer" on page 44.)
   - Set the timer about a minute before the broadcast to be recorded is scheduled to start.
4. Press the TUNER/BAND button.
   - Tune to the station to be recorded. (Refer to page 35.)
   - Adjust the volume
5. Set the POWER button to STANDBY.
6. Press the ○ REC and ► PLAY buttons of deck simultaneously.

Notes:
Timer recording will start at the preset start time. The power will not be switched off at the timer-off time during tape operation, but will be switched off when the tape ends. (The timer mode is then released.)

● To cancel timer operation
Set the POWER button to on, then press the timer (☉) ON/OFF button so that the timer mode indicator (☉) goes out.

If you do this, timer recording will not start at the timer start time.

Note:
Once the timer has been set, the start and stop times are stored in memory. When timer recording or playback is required at different times, the timer must be set again.
- After setting the timer start and stop times, check that the unit is tuned to the required frequency.

Timer playback

- Timer playback of tapes, broadcasts and CDs is possible.

Operations
1. Set the POWER switch to on.
2. Set the timer start and stop times in this order. (Refer to "Setting the timer" on page 44.)
3. Select the source sound.

Source sound	Timer mode	Operations
CD play	CD	Load a disc and press the ■/CLEAR button to set the CD mode.
Tape playback	TAPE	Load a cassette tape.
Radio broadcast	TUNER	Press the TUNER/BAND button to set to the tuner mode and tune to the required frequency.

- Timer playback of a CD is possible in programmed order. (See page 29.)
4. Adjust the volume.
5. Switch the power off.
   (When performing the timer playback of tape, press the ► PLAY button of the deck.)

- Timer playback will start at the timer start time and the power will be switched off at the timer stop time. (Tuner or CD)
  The power will not be switched off at the specified time during tape operation and will switched off at the tape end.
 The unit remains in the same timer mode even after the power is switched off and the same timer function will be repeated at the same time on the following day.

● To cancel timer operation
Set the POWER button to on, then press the timer (☉) ON/OFF button so that the timer mode indicator (☉) goes out.

Note:
- To stop during timer playback, press the POWER button to switch the unit off.

MAINTENANCE
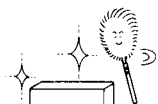
Cleaning is important!
When the tape is running, magnetic powder and dust naturally accumulate on the heads, capstan and pinch roller. When they become too dirty ...
● sound quality deteriorates
● the output sound level drops
● the previous sound is not completely erased
● recording is not performed satisfactorily.
Because of this, you should clean the heads, etc. every 10 hours of use, so that perfect recording is possible.
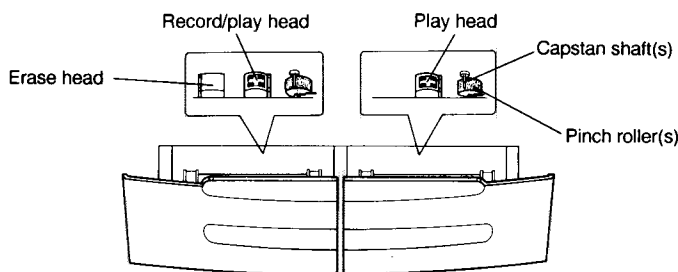
Cleaning the heads, capstan and pinch roller

Open the cassette holder.
Clean the heads, pinch roller and capstan.
For effective cleaning, use a cleaning kit available from an audio store.
After cleaning, be sure that the cleaning fluid has dried completely before loading a cassette.

Cautions:
1. Keep magnets and metallic objects away from the head. If the head becomes magnetized, noise will increase and the tone will deteriorate. Demagnetize the head every 20 - 30 hours of use with a head eraser (available from an audio store). (When demagnetizing the head, the POWER button should be set to STANDBY).
2. Do not use anything other than alcohol for cleaning. Thinner and benzine will damage the rubber pinch roller.

TROUBLESHOOTING

What appears to be trouble is not always serious. Make sure first ....

1. **When abnormal operation and display occur.**
* Remove the AC power cord and all the batteries (including memory backup batteries), then load the batteries again after a few minutes and switch on the power again. (If operation is still abnormal with the above procedure, replace all the batteries with new ones and perform operation again.)

2. **Power cannot be turned on.**
* Is the power cord unplugged?
3. **No sound from the speakers.**
* Are headphones connected?

● CD Player Section
4. **The CD player does not play.**
* Is the disc upside down?
* Is the disc dirty?
5. **A certain portion of the disc does not play correctly.**
* Is the disc scratched?
6. **When the following displays are shown:**
* Press the ▲ OPEN/CLOSE button when "Error" is displayed.
7. **EXTRA mode is not engaged.**
* Are 6 discs loaded in the CD changer?
8. **CD playback is not performed when the DISC CONTROL button is pressed.**
* Is program mode engaged?
9. **When the operation stops.**
* Switch the power OFF and ON again.

● Cassette Deck Section
10. **Playback sound is at a very low level.**
* Is the head dirty?
11. **The ○ REC button does not function.**
* Have the safety tabs of the cassette been broken off?

● Tuner Section
12. **Reception is noisy.**
* Try adjusting the antenna.

● Timer Section
13. **Timer operation does not start.**
* Is the current time set correctly?
* Is the timer mode displayed?

● Remote Control
14. **Remote control is impossible.**
* Are the batteries in the remote control exhausted?
* Is the REMOTE SENSOR section exposed to bright light (direct sunlight, etc.)?

Note:
Before making an important recording, be sure to make a test recording first to check that the deck, etc. is working correctly.